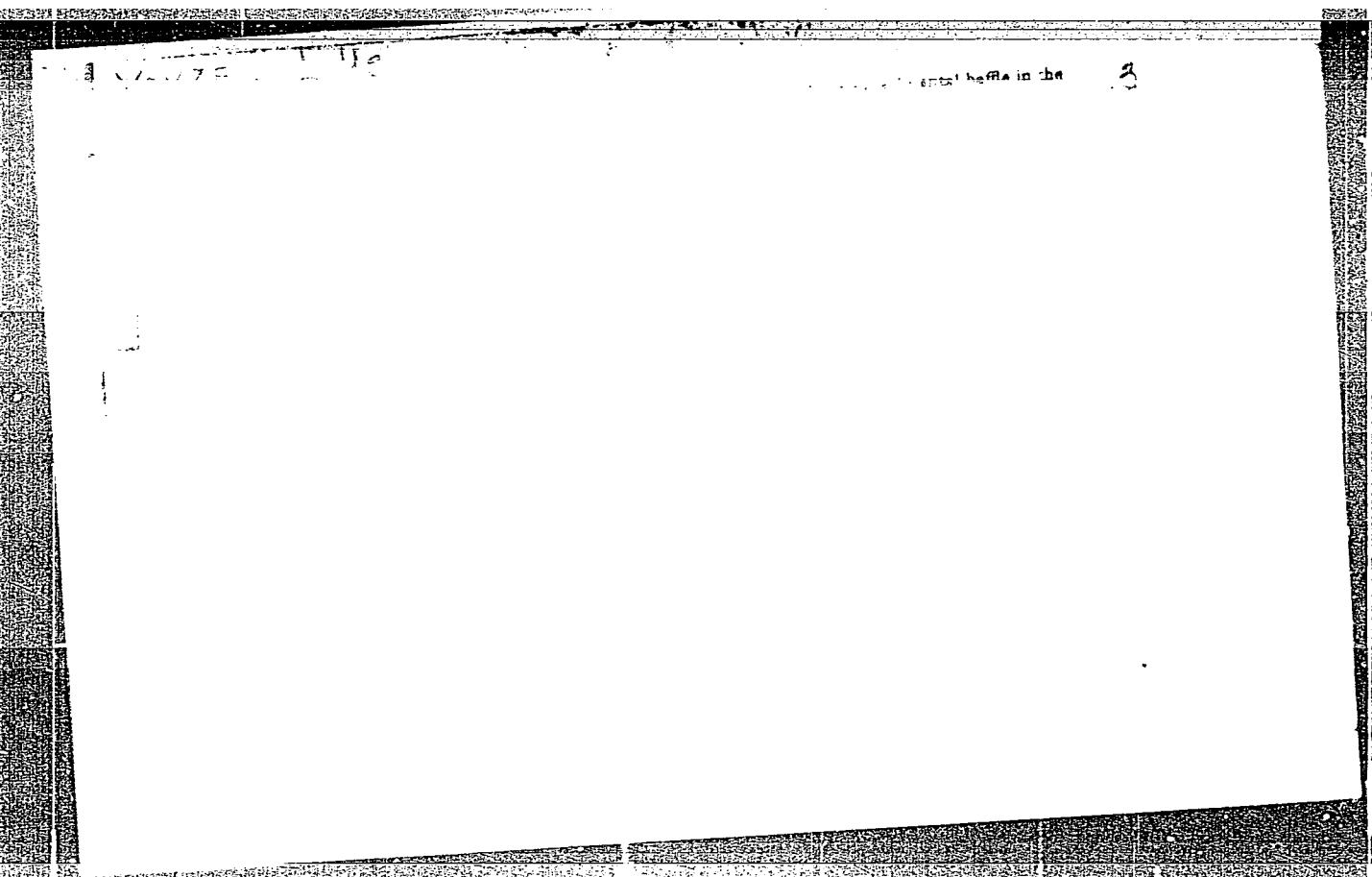


"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001859210009-6



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CIA-RDP86-00513R001859210009-6"

VAYZEL', L.Ye., inzh.

Increase in the operational stability of mechanical chain-  
type fire grates. Prom.energ. 18 no.2:25-26 F '63. (MIRA 16:2)

(Boilers)

VAYZEL', L.Ye.

Problem concerning the economic effectiveness of the utilization  
of secondary power resources. Prom. energ. 15 no.8:6-7 Ag '60.  
(MIRA 15:1)

(Power resources)  
(Steam power plants)

TIL'TIN, G.K.; VAYZEL', L.Ye.; DAMILOV, V.V.; SHCHELOKOV, Ya.M.; TARAKANOV, P.D.

Brief news. Gaz. prom. 9 no.9:52-56 '64.

(MIRA 17:10)

VAYZEL', L.Ye., inzh.; SHIROKOV, Yu.G., inzh.

Burning of sulfur-bearing mazut with small excess of air.  
Prom. energ. 20 no.11:25-27 N '65.

(MIRA 18:11)

VAYZER, A.M. and FISHER, M.N.

"Experience in the serological differentiation of diphtheria cultures and in the serological diagnosis of diphtheria." Biologicheskije Antisertiki, pp 266-276, 1950.

Translation-M-346, 21 Apr 1955.

BUTOMO, D.G.; VAYZHLIA, N.M.; ZVONKINA, V.F.; KOSHURIN, A.V.; SERGEYEV, L.N.;  
FRUMKINA, Yu.A.

Concerning the "Handbook on the processing of nonferrous metals and  
alloys" TSvet.met. 35 no.12:60 D '62. (MIRA 16:2)

1. Sovet Nauchno-tehnicheskogo obshchestva zavoda "Krasnyy  
Vyborzhets".

(Nonferrous metals)

VAYNSHTOK, I.B., kand.med.nauk; KABANNIK, A.O., kand.med.nauk

Complications in novocaine spinal anesthesia. Sov.med. 23 no.8:  
113-116 Ag '59. (MIRA 12:12)

1. Iz nevrologicheskoy kliniki (zav. - deystvitel'nyy chlen AMN SSSR  
prof. B.N. Man'kovskiy) Kiyevskogo meditsinskogo instituta.  
(PROCAINE anesth. & anelg.)  
(ANESTHESIA, SPINAL compl.)



VAYZMAN, N.P.

On the article by M.A. Sharova, E.A. Timokhina, O.V. Kaisina,  
G.G. Iastrebov. Gig.i san. 24 no.11:66 N '59. (MIRA 13:4)

1. Iz Kaluzhskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.  
(CHILDREN--CARE AND HYGIENE) (SHAROVA, M.A.)  
(TIMOKHINA, E.A.) (KAISINA, O.V.) (IASTREBOV, G.G.)

VAZA, D.L.  
TIKHONOVA, Z.I.; STEPANOVA, M.N., kandidat meditsinskikh nauk; MESHALKIN, Ye.N.,  
kandidat meditsinskikh nauk; BAKULEV, A.N., professor; GULYAYEV, A.V., pro-  
fessor; VOZNESENSKIY, V.P., professor; DMITRIYEV, I.P., professor; OGNEV,  
B.V., professor; VAZA, D.L., professor; PETROY, B.A., professor, predse-  
tel'; DOROFYEV, V.I., sekretar'.

Minutes of the session of the Surgical Society of Moscow and Moscow Province  
of June 27, 1952. Khirurgiia no.3:84-88 Mr '53. (MIRA 6:6)

1. Khirurgicheskoye obshchestvo Moskv i Moskovskoy Oblasti.  
(Heart--Surgery) (Cardiovascular system--Surgery)

VAZACA, C.

Static and dynamic characteristics of electronic drives. p. 17.

AUTOMATICA SI ELECTRONICA. (Asociatia Stiintifica a Inginerilor si  
Tehnicienilor din Romania) Bucuresti, Rum ania, Vol. 8, no. 1, Jan./ Feb. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

VAZACA, CH.

The forced and free, the stationary and transient state in automatic systems. p. 186.

AUTOMATICA SI ELECTRONICA (Asociatia Stinifica a Inginerilor si Technicienilor din  
Rominia.)  
Bucuresti, Rumania  
Vol. 2, no. 5, Sept/Oct. 1958

Monthly list of European Accession Index (EFAI) LC Vol. 8, No. 11  
November 1959  
Uncl.

VAZACA, CHRISTOPOR.

VAZACA, CHRISTOPOR. Incalzirea prin inductie in joasa si inalta frecventa.

"Bucuresti" Editura Academiei Republicii Populare Romane, 1956. 534 p.

"Low-and high-frequency induction heating. illus., bibl., tables"

NN

Not in DLC

TECHNOLOGY

ROMANIA

So: East European Accession Vol. 6, No.5, May 1957

S/194/62/000/002/023/096  
D230/D301

16,8000

AUTHOR: Vazaca, Christofer

TITLE: The role of delays in the dynamics of automatic systems

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-2-86s (Automat. si electron., 1961, 5, no. 2, 78-86)

TEXT: In the automatic regulation systems which are described by differential equations in partial derivatives, the concept of 'pure delay' (p.d.) in time is introduced. In order to supply the mathematical analysis of such systems it is convenient to represent them as systems with lumped parameters and to introduce into these a p.d. element. Analytical design methods using graphs, for linear systems with p.d. are given. The effect of p.d. on system stability is analyzed. As a connection between the ideal system with p.d. and a circuit with lumped parameters, a number of examples of the actual systems are discussed. /Abstracter's note: Complete translation. 7  
Card 1/1

1/3

VAZACA, Christofo

Criteria for the evaluation of the influence of the controller  
on the quality of automatic system. Automatica electronica 5  
no.6:233-238 M-D '61.

1. Consilier la Comitetul pentru Tehnica Noua de pe lina Consiliul  
de Ministri al R.F.R., membru al Comitetului de redactie si redactor  
responsabil, "Automatica si electronica"

S/194/62/000/004/024/105  
D222/D309

1.3230

AUTHORS: Vazaca, Christofor and Leon, Mihai

TITLE: Synthesis of active compensating circuits

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 4, 1962, abstract 4-2-71ts (Probl. automat.,  
1960, no. 3, 169-183)

TEXT: The purpose of this paper is to show the advantages of using active compensating circuits and to give a method of their synthesis. The most frequently used series-compensation is examined briefly; with some additions the results can be extended also to parallel compensation. Active circuits with zero and variable polarities are considered. The four most useful circuits for four-terminal networks are given. By analyzing these circuits the changes in the characteristics of the four-terminal networks due to the replacement of parallel RC circuits by thermionic valves, are indicated. From the graphs given, the advantages of active compensating circuits are obvious. A separate graph shows the roots of a compensa-

Card 1/2



Synthesis of active ...

S/194/62/000/004/024/105  
D222/D309

ted system. The method of synthesis is as follows: The desired function  $Y(p)$  is analytically determined for an open system. Then the transfer functions of the given physical elements are found. The result is the transfer function  $Y_a(p) = Y(p)/(Y_1(p))$  for the compensating circuit. The equivalent circuit of a compensating circuit in which the valve (pentode) is replaced by a d.c. current generator is investigated. The transfer functions of active compensating circuits are considered. [Abstracter's note: Complete translation.]

Card 2/2

VAZACA, G.

Fundamental Principles of Servomechanism Designs. ELECTROTEHNICA  
(Electrical Engineering), #10:429:Oct 55

VAZAGOSHVILI, V.I.; KNYAZEV, A.I., starshiy nauchnyy sotrudnik

Measures for the improvement of the present-day order for the delivery of scoured wool. Tekst.prom. 25 no.2:34-36 F '65.

(MIRA 18:4)

1. Ispolnyayushchiy obyazannosti rukovoditelya laboratorii syr'ya i pervichnoy obrabotki shersti TSentral'nogo nauchno-issledovatel'skogo instituta sherstyanoy promyshlennosti (for Vazagoshvili). 2. TSentral'nyy nauchno-issledovatel'skiy institut sherstyanoy promyshlennosti (for Knyazev).

USSR/Cultivated Plants. Grains.

14

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20286.

Author : V. Vazalinskas, B. Kryukelis.

Inst : Not given.

Title : Experiments and Tasks in the Cultivation of Corn (Opyt i zadachi vyrashchivaniya kukuruzy).

Orig Pub: Soc. zemes ukis, 1956, No 1, 5-10.

Abstract: No abstract.

Card : 1/1

VAZAN, Benjamin, inz.

High-frequency welding of aluminum cable tubing. Zvaranie 13  
no. 3:76-78 Mr '64

1. Research Institute of Cables and Insulators, Bratislava.

VAZAN, Benjamin, inz.

Development and use of small coaxial connector pairs in the world.  
Cs spoje 9 no.4:18-20 Ag '64.

1. Research Institute of Cables and Insulators, Bratislava.

S/138/60/000/005/001/012  
A051/A029

AUTHORS: Vazan, M., Pekh, Ya., Stoyan, S.

TITLE: The Synthetic Rubber Industry in the Czechoslovakian Republic

PERIODICAL: Kauchuk i Rezina, 1960, No. 5, pp. 1 - 2.

TEXT: Czechoslovakia is one of the first countries in the world in the consumption of rubber ( 4 kg per head ), but as to production it occupies one of the last places. During the second world war a semi-industrial plant was established for the production of chloroprene rubber, but the output was lower than the demand. In 1952, with the help of the USSR and the GDR, a plant for the production of butadiene-styrene rubber was erected which served as a basis for the subsequent development of this industry. The USSR gave Czechoslovakia the CKC-30A (SKS-30A) rubber production project. Two circumstances had to be considered in the development of the rubber industry: selection of raw materials and selection of the synthetic rubber type. After numerous economic investigations it was decided to produce butadiene from synthetic alcohol and later from its derivatives. Now Czechoslovakia can obtain homologues of methane and isopentanes, in adequate quantities.

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S/138/60/000/005/001/012  
A051/A029

The Synthetic Rubber Industry in the Czechoslovakian Republic

ties from the USSR and the problem of raw material is mostly solved. The total overhead cost of production has been decreased from 39 to 22 thousand korunas per ton of capacity in the production of synthetic rubber. The main problems involved in the production of synthetic rubber are being solved at the scientific research institute of the "Kauchuk" Plant in the city of Gottval'dov. A technology has been developed for the production of a high-plastic rubber, using colophony as the emulsifier and separation of the rubber in the form of grains. Several scientific research institutes participated in the solution of this technological problem: the Rybitva Organic Synthesis Institute, the Prague Thermal Engineering Institute, as well as the Chemical Projects and Machine-Building Institutes, also in Prague. The production costs will be about 25 million korunas per year without considering quality improvement and economy of capital investments. Work on the elimination of waste from the sewage has been carried out, the purpose of it being to eliminate the synthetic emulsifiers of the Nekal type from the coagulation waters for its regeneration. The Scientific Research Institute of Oil and Gas Industries in the city of Bratislava has developed a new type

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S/138/60/000/005/001/012

A051/A029

# The Synthetic Rubber Industry in the Czechoslovakian Republik

of selective calcium-nickel-phosphate catalyst for the hydration of butane into butadiene. The catalyst ensures a polymerization depth of 30% in butadiene at a 90% selectivity and will be used in the second stage of the synthetic rubber plant being built in Kralupy. The first stage of plant construction has begun and will be completed by 1963, the second stage by 1965. At the same time, a plant is being designed for the production of chloroprene rubber to be produced from acetylene obtained by the partial oxidation of methane. By 1965, the rubber consumption per head of the population will be brought to 6 kg; by 1970, this figure will reach 10 kg. In order to develop the rubber-manufacturing industry in Czechoslovakia further, it is important to investigate some of the problems involved in the production of stereo-regular types of rubber. ✓

ASSOCIATION: Ministerstvo khimicheskoy promyshlennosti Chekhoslovatskoy Respubliki, Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka, g. Gottval'dov (Ministry of Chemical Industry of the Czechoslovakian Republic, city of Gottval'dov, Scientific Research Institute of Synthetic Rubber)

Card 3/3

15.9210

96524

Z/009/60/010/02/019/026  
E142/E235

AUTHORS: Vazan, M., Pech, J., and Stojan, S. ✓

TITLE: Development of the Synthetic Rubber Industry in  
Czechoslovakia

PERIODICAL: Chemický Průmysl, 1960, Vol 10, Nr 2, pp 97-99

ABSTRACT: During the third Five Year Plan the production of synthetic rubber was started in Czechoslovakia. Average consumption of synthetic rubber in Czechoslovakia is 4 kg per capita; Table 1 shows the average consumption in various states in 1958 and Table 2 the estimated world output during 1952 to 1965. The authors review briefly the development of the world's synthetic rubber production and then discuss the development of the manufacture of synthetic rubber in Czechoslovakia; the importance of the raw materials, especially of petrochemicals, eg butenes is stressed. Conditions for the production of butadiene-styrene rubber SKS-30A were investigated and it is envisaged that butadiene will be eventually produced from  $C_4$  hydrocarbons (n-butene and n-butane). The Výzkumný ústav syntetického kaučuku, Gottwaldov (Research Institute for Synthetic Rubber, Kaučuk n.p. in Gottwaldov) is carrying out investigations in various

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96524

Z/009/60/010/02/019/026  
E142/E235

Development of the Synthetic Rubber Industry in Czechoslovakia

synthetic rubbers and the VÚ pro ropu a uhlovodíkové plyny (Research Institute for Petroleum and Hydrocarbon Gases) in Bratislava has been carrying out tests on a new type of selective calcium-nickel-phosphate catalyst for the dehydrogenation of butene to butadiene. This catalyst gives a 30% conversion and has a 90% degree of selectivity. It will be used in the factory "Kaučuk" in Kralupy which will begin production in 1963. It is also planned to erect a factory for the production of chloroprene rubber. This rubber will be produced from acetylene, the latter being obtained by the partial oxidation of methane. There are 5 tables.

ASSOCIATION: Výzkumný ústav syntetického kaučuku, Gottwaldov  
(Ministry for the Chemical Industry and Research  
Institute for Synthetic Rubber, Gottwaldov)

Card 2/2

VAZAN, M.; PEKH, Ya.; STOYAN, S.

Synthetic rubber industry in Czechoslovakia. Kauch.i rez. 19 no.5:  
1-2 My '60. (MIRA 13:7)

1. Ministerstvo khimicheskoy promyshlennosti Chekhoslovatskoy  
respubliki. Nauchno-issledovatel'skiy institut sinteticheskogo  
kauchuka, g. Gottval'dov.  
(Czechoslovakia--Rubber, Synthetic)

VAZBUTSKIY, A. I.

Surface structure of crystals. Zap. Vses. min. ob-va 83 no. 4: 417-  
423 '54. (MLRA 8:2)  
(Crystallography)

VAZBUTSKIY, G. L.

What are subelements? Zap. Vses. min. ob-va 84 no. 2:228-237 '55.  
(Crystallography) (MLRA 8:10)

Vazbutskiy, G.L.

USER/Solid State Physics - Morphology of Crystals.  
Crystallization.

E-8

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11808

Author : Vazbutskiy, G.L.

Inst :

Title : Sculpture of the Surface of Beryllium Crystals.

Orig Pub : Kristallografiya. Vyp. 5. M., Metallurgizdat, 1956, 69-151.

Abstract : The author considers the relief on the faces of the pinacoid of long-prism beryllium crystals. A study of the relief elements and a determination of the symbols of the faces by an approximate method were carried out under the microscope and reflected light with the aid of a Fedorov table. The fundamental elements of the relief are the projections, troughs, and layer lines. Also studied were the lateral surface of the projections and minor projections, which have a shape similar to the skeleton shape.

Card 1/3

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11808

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All the surface structures turned out to be growth structures. The sides of the layers are macroscopic faces with simple indices. A study was made of the laws of the arrangement of the crystalline nuclei on the faces. The details of the complex development of crystals from successively forming block, separated by surfaces called the "growth seams" are explained. The growing together of layers and the growth of their defects are traced. The growth process of a crystal is characterized by thicker growth layers and by simpler indices of the ends of the layers. Towards the end of the crystallization, the indices can become more complicated and change, and new faces appear, which then are broken up by the troughs into projections. Apparently, one can encounter more frequently on crystals of natural minerals structures that are produced closer towards the end of the crystallization of the

Card 2/3

VAZBUTSKIY, G. L.

Academy of Sciences - Geologists Sep 50

"New Problems of Genetic Mineralogy, " Prof D. P.  
Grigor'yev, Priroda No 9, pp 22-30

Mentions the following persons as contributing  
greatly to the development of the sciences in the  
USSR: G. G. Lemmleyn, Leningrad/Moscow; I. I.  
Shafranovskiy, Leningrad; G. N. Vertushkov



1. VAZBUTSKIY, G.L.
2. USSR (600)
4. Cassiterite
7. Primary and secondary coloration of cassiterite, G.L. Vazbutskiy. Zap. Vses. min. ob-va 82 no. 1 '53

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

BRASOVAN, M.; VAZDAUTEANU, V.; SERACIN, E.; PRODAN, M.

Experimental studies on steering wheel control in a laboratory installation. Bul St si Tehn Tim 7:197-205 '62.

VAZDAUTEANU, Vlad, ing.; SERACIN, Eugen

Braking direct current electric traction equipment with  
serially excited motors by recovery of energy. Rev transport  
10 no.5:223-230 My '63.

VAZDIKIS, A.Kh.

Tube rolls with vinyl plastic jackets. Bum.prom. 31 no.5:21 My '56.  
(MLRA 9:8)

1. Glavnyy mekhanik tsellyulozno-bumazhnogo kombinata "Sloka".  
(Papermaking machinery)

SISAKYAN, N.M.; PARIN, V.V.; CHERNIGOVSKIY, V.N.; VAZDOVSKIY, V.I.

Problems of space biology and physiology. Izv. AN SSSR. Ser.  
biol. no.2:153-162 Mr-Apr'62. (MIRA 16:7)  
(SPACE BIOLOGY)

VAZDUTEANU, Vlad, ing.;TURCU, Ion, ing.;CERNESTEANU, Vasile, ing.

The VAT-1 streetcar with automatic control. Rev transport  
10 no. 7:303-307 J1 '63.

VACECKY, V.

Construction of dwelling units in Switzerland.

P. 276. (STAVBA.) (Bratislava, Czechoslovakia) Vol. 4, No. 9, Sept. 1957

SO: Monthly Index of East European Accession (IEAI) LC. Vol. 7, No. 5, 1958

KIRZAN, G.; SHAPOVALOV, K.; VAZENMALLER, N., starshiy inzhener

Mechanized fattening farm. Sel'. stroi. 16 no.9:9-10 S '61.  
(MIRA 14:9)

1. Glavnyy inzhener Omskogo oblastnogo upravleniya po stroitel'stvu v kolkhozakh (for Kirzan). 2. Glavnyy konstruktor Sibirskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Shapovalov).  
(Kormilovka District—Swine houses and equipment)



SHAPOVALOV, K.S.; VAZENMILLER, N.K., inzh.

The carrusel type milking conveyor. Zhivotnovodstvo 24 no.9:79-85  
S '62. (MIRA 15:12)

1. Glavnyy konstruktor konstruktorskogo byuro Sibirskogo nauchno-  
issledovatel'skogo instituta sel'skogo khozyaystva (for Zhapovalov).  
(Omsk Province—Milking)

VOLWITSEVSKAYA, Ye. I.; VITKOVSKAYA, N. I.

Characterization of the producing sediments of the Devonian of the Ural J.B. 1966 and 1967 according to the magnitudes of the ratios  $\frac{V_1}{V_2}$  and  $\frac{L_1}{L_2}$  in clay materials, determined by spectral analysis. Study VIII no. 421278-109 '65.

(MIRA 1966)

VOLOVIKOVSKAYA, Ye.P.; VAZERSKAYA, N.A.

Dividing and correlating the terrigenous sediments of the Lower Carboniferous period of the Kama-Kinel' Depression from the ratios V/Ni and Cu/Ni determined by spectral analysis. Trudy VNII no.38:147-156 '63. (MIRA 17:9)

VAZETDINOV, A.S.; SHCHERBAKOV, V.D.

The KM-2 machine for the mechanization of cable-laying operations.  
Bul.tekhrekon.inform. no.9:41-43 '60. (MIRA 13:10)  
(Electric lines)

VAZETDINOV, A.S., kand.tekhn.nauk

Calculation of the basic parameters of machines for horizontal  
boring. Stroi. truboprov. 6 no.9:7-10 S '61. (MIRA 14:9)  
(Boring machinery)

VAZETDINOV, A.S.

VAZETDINOV, A.S.

Determining the effort of intrusion and the location of the boring  
head in piercing the ground. Vod. i san. tekhn. no.1:21-26 Ja '58.  
(Boring) (MIRA 11:1)

07722-701000-1000  
VAZETDINOV, A.S., inzh.

Using horizontal boring machines in underground laying of pipes.  
Mekh. stroi. 15 no.1:12-15 Ja '58. (MIRA 11:1)  
(Boring machinery) (Pipelines)

18(5)

SOV/112-59-2-3393

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2,  
pp 166-167 (USSR)

AUTHOR: Vazetdinov, A. S., Marchenko, I. A., and Rurevich, V. P.

TITLE: Semiconductor Device for Monitoring the Drill Position in Horizontal Drilling (Pribor na poluprovodnikakh dlya kontrolya za polozheniyem bura pri gorizonta'l'nom burenii)

PERIODICAL: V sb.: Primeneniye poluprovodnikov v tekhn. provodn. svyazi.  
M., Svyaz'izdat, 1957, pp 86-90

ABSTRACT: An instrument used to determine the drill position in drilling horizontal holes is described. The instrument includes a 1,000-cps oscillator that has a transformer-type feedback coupling and a high-gain amplifier tuned to the same frequency. The oscillator with its antenna, represented by the load-circuit coil, is imbedded in the drill; the coil axis is aligned with the drill axis. A searching-type receiver including 3 tuned circuits and an amplifier is

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SOV/112-59-2-3393

Semiconductor Device for Monitoring the Drill Position in Horizontal Drilling

situated on the surface. The three coils of the three input-tuned circuits are so arranged that two of them have mutually perpendicular axes in the vertical plane (one horizontal axis and the other vertical), while the third-coil axis can be deflected from the vertical line at any angle between  $0^{\circ}$  and  $90^{\circ}$ . The drill position can be found by moving the searching instrument for minimum EMFs induced in the first two coils. After that, the third coil is turned for minimum signal. From its angle and the distance between the third coil and the intersection of axes of the first two coils, the drill depth can be determined. Three illustrations.

N.A.U.

Card 2/2

GEDOVIUS, G.A., inzh.; VAZETDINOV, A.S., kand.tekhn.nauk; SEVERINOVA, E.P.,  
inzh.

Laying a cable from Brody to Uzhgorod. Stroi.truboprov. 7  
no.2:19-21 F '62. (MIRA 15:3)  
(Cables)

VAZETDINOV, A.S.

Communication cabling in a holder together with a pipeline.  
Stroi. truboprov. 9 no.8:20-21 Ag '64. (MIRA 17:12)

VAZETDINOV, A. S.: Master Tech Sci (diss) -- "Investigation of methods and equipment for underground tunnel cutting for laying down piping for cable communications". Moscow, 1959. 12 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Construction Engineering Inst im V. V. Kuybyshev), 130 copies (KL, No 15, 1959, 116)

VAZETDINOV, A.S.; KRUGOV, V.P.

Hydromechanical laying of multihollow blocks for conduits in building  
municipal telephone lines. Vest.sviazi 17 no.6:16 Ja '57.  
(MLRA 10:8)

1. Starshiye inzheneri Vsesoyuznogo nauchno-issledovatel'skogo  
instituta transportnogo stroitel'stva.  
(Telephone lines)

VAZETDINOV, A.S., kand.tekhn.nauk; SHCHERBAKOV, V.D., inzh.

Motortruck designed for the servicing of electric lines. Vest.  
sviazi 20 no.9:9-10 S'60. (MIRA 13:10)  
(Motortrucks) (Electric lines—Maintenance and repair)

VAZHEGOVSKIY, M.F. [Vazhehova'kyi, M.F.]

Urgent problems facing our stockbreeders. Nauka i zhyttia 9  
no.6:35-38 Je '59. (MIRA 12:8)  
(Ukraine--Stock and stockbreeding)

VAZHEL', B. T.

VAZHEL', B. T.: "Investigation of conditioned and unconditioned vascular reflexes in vascular patients with psychic disorders." First Moscow Order of Lenin Medical Institute imeni I. M. Sechenov. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Sciences.)

Source: Knizhnaya letopis'

No 40

1956

Moscow



VAZHENIN, A.N., inzh.

Progressive speed of self-propelled combines during the picking  
up of grain windrows. Trakt. i sel'khoz mash, 33 no. 6:23-25  
Je '63. (MIRA 16:7)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii  
sel'skogo khozyaystva.  
(Combines (Agricultural machinery))

VAZETDINOV, A.S.

VAZETDINOV, A.S.

Trenchless laying of cable conduits with the BG-1 machine. Vest.  
svyazi 17 no.12:11-12 D '57. (MIRA 10:12)

1. Starshiy inzhener Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi.

(Electric cables)

VAZHDAYEV, V.M., starshiy elektromekhanik; GONCHAROV, M.K.

Letters to the editors. Avtom.telem. i sviaz' 3 no.1:40  
Ja '59. (MIRA 12:1)

1. Yaroslavskaya distantziya signalizatsii i svyazi Severnoy  
dorogi (for Vazhdayev). 2. Nachal'nik Kalinkovichskoy distantzii  
signalizatsii i svyazi Belorusskoy dorogi (for Goncharov).  
(Railroads--Signaling)

POPOV, Anatoliy Andreyevich, kand.veterin.nauk; SIDORA, Vera Fedorovna, ptichnitsa, Geroy Sotsialisticheskogo Truda; VAZHEL', Yu.G., red.; KATSNEL'SON, S.M., red.izd-va; ATROSHCHENKO, L.Ye., tekhn.red.

[For two million eggs a year] Za dva miliona iaits v god. Moskva, Izd-vo "Znanie," 1960, 31 p. (Vsesoyuznoe obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.5, Sel'skoe khoziaistvo, no.17). (MIRA 13:9)

1. Zamestitel' direktora Ukrainskogo nauchno-issledovatel'skogo instituta ptitsevodstva (for Popov).  
(Poultry)

OYFEBAKH, Mark Il'ich, prof., doktor med.nauk; VAZHEL', Yu.G., red.;  
BERLOV, A.P., tekhn.red.

[Progress in the prevention and treatment of tuberculosis]  
Uspekhi v profilaktike i lechenii tuberkuleza. Moskva. Izd-vo  
"Znanie," 1958. 23 p. (Vsesoiuznoe obshchestvo po rasprostraneniu  
politicheskikh i nauchnykh znani. Ser. 8, vyp. 1, no.21)  
(TUBERCULOSIS) (MIRA 12:1)

PRIOROV, Nikolay Nikolayevich, prof., zaslužennyy deyatel' nauki; REVZIN, Iosif Il'ich, laureat Stalinskoy premii, starshiy nauchnyy sotrudnik; VAZHEL', Yu.G., red.; SUKHOV, A.D., red.izd-va; SAVCHENKO, Ye.V., tekhn.red.

[Plastic materials in medicine] Plastmassy v meditsine. Moskva, Izd-vo "Znanie," 1958. 23 p. (Vsesoyuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znaniy. Ser.8, vyp.1, no.24) (MIRA 12:2)

1. Deystvitel'nyy chlen AMN SSSR (for Priorov).  
(PLASTICS) (MEDICAL SUPPLIES)

VAZHENIN, B.V., inzh.

Freezing of the moisture of building materials. Stroi, mat. 11  
no.10:24-25 0 '65.

(MIRA 18:10)





15

*CP*

The fixation of absorbed potassium in soils in the presence of sodium and magnesium. I. Vazhenin. *Chemistry*

*tion Socialistic Agr. (U. S. S. R.) No. 4, 20-30(1930).—*  
 Addas. of NaCl and MgCl<sub>2</sub> cause a greater fixation of K in soils. Carnallite and sylvinite are especially instrumental in fixation of K. Na alone is higher in fixation power than Mg and a mixt of Na and Mg is higher than an equiv. of Na. The residual effect of carnallite and sylvinite is due to the fixation of K. The reasons advanced for the fixation of K are: The higher hydration of the Na ion dehydrates the K ion. The Na ion because of its hydration enters the complex first; it is replaced later by the K. The effective radius of the K ion is higher than those of the other cations in the soil and therefore the K is fixed in the crystal lattice.  
 I. S. Ioffe

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UU, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

CA

7

Colorimetric determination of adsorbed ammonia by the phenol method. I. G. Vashutin. *Pskovskaya (Pedology) 1949, 350-31.*—A modification of the Foxwell phenol method (C.A. 10, 1484) is said to give as good results as the Nessler method which is not good when a salt is used. The method is good when equiv. quantities of phenol and hypochlorite are present; the vol. of sample and reagents, are kept small and constant, the phenol is added first to the soln., mixed thoroughly, and the mix. is treated with hypochlorite, the diln. of the soln. for colorimetric observations is made after heating and cooling about 15 ml. of soln. J. S. Joffe

Causes of differing effectiveness of kinds of potassium fertilizers on light sod-podzolic soils. I. G. G. Vashchenko. *Trudy Pechenogo Inst. im. P. P. Dokuchaeva* 1959, 33, 127-31 (1959).—The effect of K fertilizers on the yield was studied during the 16 years of this investigation. Also, physicochem., and chem. properties of the soil, the effect of the fertilizers on the microbial activity of the soil (potatoes), and on the carbohydrate and protein metabolism in the plant, effect of individual components of K fertilizers (K, Br, I, Li, etc.) on the growth of the plants, and the effect of fertilizers on enzymes in the plant. As result of 16-year application of chem. fertilizers, the humus content was reduced by 20-30%, the dispersivity of soil microaggregates increased, air and water permeability decreased, water absorption and water-holding capacity of the soil decreased, the absorption complex of the soil diminished, the alk. earth salt decreased, the acidity rose, and the microbial population deteriorated. Most favorable K fertilizer was  $K_2SO_4$ , and least favorable  $KCl$ . The effects on the starch content in diminishing order were  $K_2SO_4 > KNO_3 > \text{no fertilizer} > N \text{ and } P \text{ only} > KCl > NaCl > \text{silvinit} > \text{canalite}$ . Repeated application of K fertilizer in any form caused a decrease in starch content. The exhaustion of the "potato-bearing" capacity of the soil was attributable to the depletion of Mg and some minor elements, e.g., B, I, Br, or Cu. The beneficial effects of the minor elements were: greater life activity in the leaves (B, Cu), increased carbohydrate formation in the leaves (B, I, Br), and increased rate of flow of sugars from leaves to tubers. The order in which the minor elements affected the yield of tubers was  $B > I > Br > Cu > Zn$ . To secure good yields by continuous cropping and exclusive use of chem. fertilizer, Mg, S, and the minor elements must be supplied.

BA  
B-III

Different effectiveness of forms of potassium fertilizers on light  
and potato. I. G. Vashchenko (*Trudy Pech. Inst. Dobuchanov*,  
1951, 28, 127; *Sov. & For.*, 1951, 24, 475).—The effectiveness  
of various K fertilizers was determined mainly by their content of  
Cl, Mg, Na, S, and trace elements, these additional components  
determining photosynthetic activity, the translocation of sugar  
into the tubers, and the conversion of sugar into starch.  
C. H. NORTH.

VAZHENIN, I.G.; KARASEVA, G.I.

Agrochemical methods for determining available potassium in  
soils. Pochvovedenie no.8:87-92 Ag '59. (MIRA 12:11)

1. Pochvennyy institut im. V.V.Dokuchayeva AN SSSR.  
(Soils--Analysis) (Potassium)

VAZHENIN, Ivan Georgiyevich

Academic degree of Doctor of Agricultural Sciences, based on his defense, 28 April 1954, in the Council of the Soil Institute imeni Dokuchayev Acad Sci USSR, of his dissertation entitled: "Potassium Fertilizer on Light Turf Podzol Soil".

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 9, 16 April 55, Byulleten' MVO SSSR, No. 14, Jul 56, Moscow, pp 4-22, Uncl. JPRS/NY-429

VAZHENIN, I. G.

"Potassium Fertilizers on Light Sod-Podsolic Soils." Dr Agr Sci,  
Soil Inst, Acad Sci USSR, Moscow 1954 (RZhKhim, No 20, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

VAZHENIN, I.G.

Agrochemical characteristics of turf-Podzolic soils of Kaliningrad Province during various stages of cultivation [with summary in English]. Pochvovedenie no.6:63-73 Je '57. (MLRA 10:9)

1. Pochvennyy institut imeni V.V. Dokuchayeva Akademii nauk SSSR.  
(Kaliningrad Province--Podzol)



SMOL'YANINOV, Ivan Ivanovich; LEONOVA, T., red.; VAZHENIN, I.G.,  
doktor sel'khoz. nauk, nauchn. red.

[Agricultural chemistry on guard for fertility] Agrokhi-  
mika na strazhe plodorodiia. Moskva, Izd-vo "Znanie,"  
1964. 39 p. (Novoe v zhizni, nauke, tekhnike. V Serii:  
Sel'skoe khoziaistvo, no.18) (MIRA 17:10)

VAZHENIN, I.G.

Using methods of variational statistics in agrochemical soil investigations. Pochvovedenie no.2:43-57 P '63. (MIRA 16:3)

1. Pochvennyy institut imeni V.V.Dokuchayeva.  
(Soils--Analysis)

VAZHENIN, I.G.; MUZYCHKIN, Ye.T.; PROKHOROVA, Z.A.; ALESHINA, T.N.

Methods of compiling large-scale agrochemical soil maps for appropriate fertilizer use. Pochvovedenie no.4:1-13 Ap '61. (MIRA 14:6)

1. Pochvennyy institut imeni V.V.Dokuchayeva AN SSSR.  
(Soils—Maps)

COUNTRY : USSR  
 CATEGORY : Soil Science. Soil Genesis and Geography. J  
 ABS. JOUR. : RZhSol., No. 3 1959, No. 10657  
 AUTHOR : Vozhenin, I.G.  
 INST. : -  
 TITLE : Agrochemical Characteristics of Turf-Podzolic Soils of Different Degrees of Cultivation in Kaliningradskaya Oblast'.  
 ORIG. PUB. : Pochvovedeniye, 1957, No. 6, 63-73  
 ABSTRACT : The influence of the duration of agricultural utilization of the territory on fertility and agrochemical properties of the soils was studied. Kaliningradskaya oblast' is an extreme western province of the zone of conifer-broad-leaved forests with a warm and moist seashore climate which favors an intensive development of vegetation and microbiological processes in the soils. But the content of mobile forms of nutrients in cultivated turfed soils may be lower than in the uncultivated ones (forest soils). In the conditions of Kaliningradskaya oblast'.

(ASO:1/2

COUNTRY :  
ORIGIN :

ABST. JOUR. : RZhBiol., No. 1959, No. 10657

AUTHOR :  
EDITOR :  
TITLE :

ORIG. PUB. :

ABSTRACT : with heightened cultivation of the soils, an increase in  
then of mobile forms of N, P, and K, a decrease in acidity  
and an increase in the saturation with bases, are charac-  
teristic. -- P. M. Kofiyeva

DISSEM:

VAZHENIN, I.N.

Nonlinear analysis of an almost harmonic self-excited oscillator on a semiconductor triode in an undervoltage mode. Izv. vys. ucheb. zav.; radiofiz. 7 no.5:937-947 '64.

(MIRA 18:2)

1. Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosudarstvennom universitete.

ACC NR: AR7001754

SOURCE CODE: UR/0274/66/000/010/A012/A012

AUTHOR: Vazhenin, I. N.

TITLE: Nonlinear analysis of nearly-harmonic oscillators with transistors

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10A88

REF SOURCE: Tr. Tomskogo in-ta radioelektron. i elektron. tekhn., no. 4, 1965, 74-85

TOPIC TAGS: harmonic oscillator, transistor, oscillatory ~~analysis~~ circuit

ABSTRACT: The analysis of self-excited oscillators with diffusion transistors is investigated in consideration of basic nonlinear and inertial transistor properties. The approximation of the nonlinear transistor properties is sufficiently accurate for practical purposes. The system of equations of oscillator oscillations is derived and solved by the method of slowly changing amplitudes. As a result, formulas suitable for engineering calculations of steady-state conditions in a self-excited oscillator are derived. The discrepancy between the results calculated from these formulas and experimental results depends on the degree of reproduction and neglect. With the observance of certain conditions, the relative error of the

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UDC: 621.373.52:538.56

ACC NR: AR7001754

amplitude is less than  $C_1/C$  under undervoltage conditions, and of the order of  $C_1/C$  under overvoltage conditions ( $C$  is the capacitance of the oscillatory circuits;  $C_1$  — the collector-emitter capacitance). The results of the experiment are cited. There are six illustrations and a bibliography of 9 titles. [Translation of abstract]  
[DW]

SUB CODE: 09/

Card 2/2



VAZHENIN, I.N.

Dependence of the critical frequency of type P-4 semiconductor triodes on the emitter current. Izv. vys. ucheb. zav.; fiz. 8 no.3:76-80 '65. (MIRA 18:9)

1. Tomskiy gosudarstvennyy universitet imeni V.V.Kuybysheva.

VAL'SKAYA, Blyuma Abramovna; VAZHENIN, K.A., redaktor; KOSHCHILEVA, S.M.,  
tekhnicheskiy redaktor

[Travels of Egor Petrovich Kovalevskii] Puteshestviia Egora  
Petrovicha Kovalevskogo. Moskva, Gos. izd-vo geogr. lit-ry,  
1956, 199 p. (MLRA 10:3)  
(Kovalevskii, Egor Petrovich, 1811-1868)

VAZHENEN, K.A.

Berg, Raisa L'vovna; KHROMOV, S.P., professor, redaktor; VAZHENEN, K.A.,  
redaktor; RIVINA, I.N., tekhnicheskii redaktor.

[Through lakes of Siberia and Central Asia; travels of L.S.Berg.  
(1898-1906) and P.G.Ignatov (1898-1902)] Po ozeram Sibiri i Srednei  
Azii; puteshestviia L.S.Berga (1898-1906 gg) i P.G.Ignatova  
(1898-1902 gg.). Moskva, Gos.izd-vo geogr.lit-ry, 1955. 318 p.  
(MLRA 9:1)

(Siberia--Description and travel)

(Soviet Central Asia--Description and travel)

VAZHENIN, K.I.; IL'IN, A.A.

We are for the present method of keeping records. <sup>Eum. prom.</sup>  
36 no.11:13 N '61. (MIRA 15:1)

1. Uglegorskiy kombinat.  
(Paper industry—Accounting)

VAZHENIN, M.

Banks and Banking

"Competition for the title "Group excelling in accounting and operations work," Den. i kred,  
11, No 2, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952, Unclassified.

VAZHENIN, N., nachal'nik (Kiyev); SOKHATSKIY, V., predsedatel' (Tashkent);  
POROSHIN, V., zamestitel' predsedatelya (Novosibirsk); KLAZ, I., instruk-  
tor; CHISTYAKOV, I., predsedatel' (Taganrog).

All-Union Military Games of primary organizations of the All-Union  
Volunteer Society for Assistance to the Army, Air Force, and Navy.  
Voen.znan. 29 no.9: 2 of cover S '53. (MLRA 6:12)

1. Otdel orgmassovoy raboty i propagandy orgkomiteta Vsesoyuznogo obshchestva sodeystviya aviatsii Ukrainskoy SSR (for Vazhenin).
  2. Orgkomitet Vsesoyuznogo obshchestva sodeystviya aviatsii Uzbekskoy SSR (for Sokhatskiy).
  3. Oblastnyy orgkomitet Vsesoyuznogo obshchestva sodeystviya aviatsii (for Poroshin).
  4. Minskiy oblastnyy orgkomitet Vsesoyuznogo obshchestva sodeystviya aviatsii (for Klaz).
  5. Komitet pervichnoy organizatsii Vsesoyuznogo obshchestva sodeystviya aviatsii (for Chistyakov).
- (Military education)

TRUBACHEV, I.I.; ANTIFON, I.N.; VASHENIN, S.F.; KHYMOV, A.I.; VERKHOVETS, V.T.

Adjusting the electrolyte of an aluminum bath with a liquid  
melt. TSvet. met. 38 no.8:58-60 Ag '65. (MCRA 1819)

VAZHENIN, S. F.

USSR/ Laboratory Equipment. Apparatuses, Their Theory I  
Construction and Application.

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27366.

Author : L.N. Antipin, Yu.B. Kholmanskikh, S.F. Vazhenin.

Title : Application of Polarograph to Automatic Recording  
of Polarization Curves in Fused Salts.

Orig Pub: Zh. fiz. khimii, 1956, 30, No. 7, 1672 - 1675.

Abstract: The installation for automatic recording of polarization curves with a polarograph by two different methods is described. 1. By the direct compensation method with following deduction of the voltage drop (current method). In this case, the change of the length of the slide wire of the polarograph corresponds to the change of voltage and the current is recorded with a galvanometer. 2. Commutator method (voltage method). In this

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USSR/ Laboratory Equipment. Apparatuses, Their Theory, Construction and Application. I

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27366.

case, the strength of the current is determined by the working length of the slide wire and the galvanometer serves as a voltmeter. It was established at the recording of anode polarization curves for fused cryolite with alumina ( $\text{Na}_2\text{AlF}_6 + 3\% \text{ of Al}_2\text{O}_3$ ) by the current method that this method requires a cumbersome treatment of received results. The commutator method is sufficiently accurate for melted salts and allows the curves without any preliminary treatment.

Card 2/2

ANTIPIN, Lev Nikolayevich; VAZHENIN, Sergey Filippovich; REMPEL',  
S.I., red.; EL'KIND, L.M., red.izd-va; ISLENT'YEVA, P.G.,  
tekhn. red.

[Electrochemistry of fused salts] Elektrokhimiia rasplav-  
lennykh solei. Moskva, Metallurgizdat, 1964. 355 p.  
(MIRA 17:3)

ANTIPIN, Lev Nikolayevich; VAZHENIN, Sergey Filippovich; KAL'CHENKO,  
V.S., retsenzent; SYRCHINA, M.M., red. izd-va; TURKINA, Ye.D.,  
tekhn. red.

[Saving of electric power in stepped-up production of aluminum]  
Ekonomiia elektroenergii pri intensifikatsii proizvodstva aliu-  
minia. Sverdlovsk, Metallurgizdat, 1961. 34 p. (MIRA 16:1)  
(Electric power) (Aluminum)

STOROZHENKO, V.N.; VAZHENIN, S.F.; ANTIPIN, L.N.

Use of a high-temperature microscope for plotting the diagrams of state of salt systems. Zhur. fiz. khim. 39 no.2:524-527 F '65.

1. Ukrainskiy gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut tsvetnoy metallurgii.

VAZHENIN, S.F.

USSR/Physical Chemistry - Solutions, Theory of Acids and Bases.

B-11

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7290.

Author : S.I. Kuznetsov, L.N. Antipin, S.F. Vazhenin.

Inst :

Title : Character of Change in Some Properties of Aluminate Solutions in Decomposition Process.

Orig Pub: Zh. prikl. khimii, 1957, 30, No 3, 357-361.

Abstract: The character of changes in density, viscosity, specific electrical conductivity, surface tension and oversaturation degree of aluminate solutions at the decomposition process in various industrial regimes is shown. It is found that these properties change very little in the decomposition process. They may be assumed without any great error to be constant in the complete duration of the process with the exception of the initial period.

Card : 1/1

-5-

*VAZHENIN, S.F.*

KUZNETSOV, S.I.; VAZHENIN, S.F.

Influence of sulfur compounds on the dispersive composition of  
aluminum hydroxide in the decomposition process of aluminate  
solution. Trudy Ural.politekh.inst. no.58:68-70 '57. (MIRA 11:4)

(Alkali metal aluminates) (Sodium sulfate)

ANTIPIN, L.N.; VAZHENIN, S.F.; SINYAGOV, A.A.

Effect of current density on electrical conductivity in the  
system: carbon electrode - molten cryolite - dissolved alumi-  
num. Nauch.dokl.vys.shkoly; met. no.1:48-53 '59. (MIRA 12:5)

1. Ural'skiy politekhnicheskiy institut.  
(Aluminum--Electrometallurgy)

SOV/163-58-1-3/53

AUTHORS: Antipin, L. N., Vazhenin, S. F., Shcherbakov, V. K.

TITLE: The Electric Conductivity of the System Graphite Electrode - Cryolite Melt - Dissolved Aluminum (Elektroprovodnost' sistemy grafitovyy elektrod - kriolitovyy rasplav - rastvorennyy alyuminiy)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 1, pp 13-15 (USSR)

ABSTRACT: The graphite electrode and cryolite melt were investigated in regard to their electric conductivity by the addition of aluminum metal. The electric conductivity of this system was determined in relation to the cryolite ratio



The electric conductivity of the cryolite melt is influenced by the compounds forming in the interaction between aluminum and graphite electrodes. On addition of the metal to the cryolite melt the electric conductivity is changed according to the modification of the cryolite ratio. At the cryolite ratios 1.9 and 2.7 a maximum of the electric conductivity

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SOV/163-58 1 3/53

The Electric Conductivity of the System Graphite Electrode - Cryolite Melt  
- Dissolved Aluminum

occurs, and at the cryolite ratio  $\frac{\text{NaF}}{\text{AlF}_3} = 2.3$  a minimum occurs.

The results show that in the electrolysis of the cryolite melts complex compounds are formed which modify their structure and composition at the cryolite ratios 1.9, 2.3 and 2.7.

The presence of minima and maxima in the electric conductivity in the curves proves that the interaction between the cations  $\text{Na}^+$  and  $\text{Al}^{3+}$  and the fluorine anions is very complicated. In the cryolite melt complicated cryolite complexes of the

type  $\text{Al}_n\text{F}_m^z$  probably exist. The composition of those complexes changes according to the modification of the cryolite ratio. On the addition of the metal to the metal melt a considerable change in the electric conductivity occurs. This change is probably based on the interaction between aluminum and carbon, and is also dependent on the change of the structure especially in the vicinity of the electrode zone. There are 3 figures and 9 references, 9 of which are Soviet.

Card 2/3

SOV/163-58-1-3/53

The Electric Conductivity of the System Graphite Electrode - Cryolite Melt -  
- Dissolved Aluminum

ASSOCIATION: Ural'skiy politekhnicheskiy institut  
(Ural Polytechnical Institute)

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ANTIPIN, L.N.; VAZHENIN, S.F.

Effect of  $\text{CaF}_2$  and  $\text{MgF}_2$  on the electric conductivity of "carbon  
electrode - molten cryolite - aluminum solution" systems. TSvet.  
met. 31 no.12:56-60 D '58. (MIRA 11:12)  
(Aluminum--Electrometallurgy) (Alkaline earth fluorides)  
(Electrolites)

18(4),5(1),8(0)

AUTHORS:

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TITLE:

Influence of Current Density Upon the Electric Conductivity  
of the System Carbon Electrode-Kryolithe Melt-Dissolved  
Aluminum (Vliyaniye plotnosti toka na elektroprovodnost'  
sistemy uglerodistyy elektrod-kriolitovyy rasplav-rastvorennyy  
alyuminiy)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 1,  
pp 48-52 (USSR)

ABSTRACT:

The bridge circuit described by Abramov and Vetyukov (Ref 8)  
served as the basis of the measurements carried out in this  
investigation. Into this circuit additional capacities were  
introduced. They prevent the direct current from entering the  
input of the amplifier and the high-frequency generator. A  
reactive coil was inserted to avoid a short-circuiting of the  
alternating current caused by the control resistance. A VSA-8  
selenium rectifier was used as a direct current source. The  
measuring instrument was identical with that used in the work  
by Antipin, Vazhenin, and Sucherbakov, cited by reference 1.  
The conductivity was measured between the outside electrode

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